WHAT IS CLAIMED IS:

1. An apparatus for estimation of biological electromagnetic compatibility comprising:

model data storing means including at least scattering body model data, in which a scattering body corresponding to a living body is divided into grids and the specific dielectric constant and the conductivity of each grid are prescribed, electromagnetic wave radiation source model data, in which an electromagnetic wave radiation source is divided into segments each having a unit length, data showing the positional relationship between the scattering body and the electromagnetic wave radiation source, data for prescribing a region to which a MoM including the electromagnetic wave radiation source is applied, and data for prescribing the region to which a scattered field type FDTD method including the region to which the scattering body and the MoM are applied;

first MoM processing means for determining the distribution of a current on the electromagnetic wave radiation source distributed by a voltage fed to the electromagnetic wave radiation source by the MoM;

MoM/FDTD coupling means for determining incident electromagnetic fields incident on the respective grids in the scattering body from the electromagnetic wave radiation source using the distribution of the current on the electromagnetic wave radiation source determined above;

FDTD method processing means for determining the electromagnetic field scattered from the scattering body by a scattered field type FDTD method from the incident

electromagnetic field determined above;

FDTD/MoM coupling means for determining electromotive forces induced in the respective segments constituting the electromagnetic wave radiation source from the scattered electromagnetic field determined above;

second MoM processing means for determining the distribution of the current on the electromagnetic wave radiation source distributed by the voltage fed to the electromagnetic wave radiation source and by the induced electromotive forces in the respective segments by the MoM; and

repeat control means for repeating the processing steps executed by the MoM/FDTD coupling means, the FDTD method processing means, the FDTD/MoM coupling means, and the second MoM processing means until the results of the calculations executed at the processing steps are converged.

2. The apparatus for estimation of biological electromagnetic compatibility according to claim 1, wherein the repeat control means further includes electromagnetic wave protection indicating value calculation means for calculating an electromagnetic wave protection indicating value from the results of the calculations of the scattered electromagnetic field and the like when it is determined that the results of the calculations have been converged.

3. A method for estimation of biological electromagnetic compatibility comprising:

a step of previously storing model data including at least scattering body model data, in which a scattering body corresponding to a living body is divided into grids and the specific dielectric constant and the conductivity of each grid are prescribed, electromagnetic wave radiation source model data, in which an electromagnetic wave radiation source is divided into segments each having a unit length, data showing the positional relationship between the scattering body and the electromagnetic wave radiation source, data for prescribing a region to which a MoM including the electromagnetic wave radiation source is applied, and data for prescribing the region to which a scattered field type FDTD method is applied, including the region to which the scattering body and the MoM are applied;

a first MoM processing step of determining the distribution of a current on the electromagnetic wave radiation source distributed by a voltage fed to the electromagnetic wave radiation source by the MoM;

a MoM/FDTD coupling step of determining incident electromagnetic fields incident on the respective grids in the scattering body from the electromagnetic wave radiation source using the distribution of the current on the electromagnetic wave radiation source determined above;

a FDTD method processing step of determining the electromagnetic field scattered from the scattering body by a scattered field type FDTD method from the incident electromagnetic field determined above;

a FDTD/MoM coupling step of determining electromotive

forces induced in the respective segments constituting the electromagnetic wave radiation source from the scattered electromagnetic field determined above;

a second MoM processing step of determining the distribution of the current on the electromagnetic wave radiation source distributed by the voltage fed to the electromagnetic wave radiation source and by the induced electromotive forces in the respective segments by the MoM; and

a repeat control step of repeating the steps executed at the MoM/FDTD coupling step, the FDTD method processing step, the FDTD/MoM coupling step, and the second MoM processing step until the results of the calculations executed at the processing steps are converged.

4. The method for estimation of biological electromagnetic compatibility according to claim 3, wherein the repeat control step further comprises an electromagnetic wave protection indicating value calculation step of calculating an electromagnetic wave protection indicating value from the results of the calculations of the scattered electromagnetic field and the like when determined that the results of the calculations have been converged.

5. A program for estimation of biological electromagnetic compatibility, comprising codes described in the program according to which a computer can execute the data comprising:

scattering body model data, in which a scattering body corresponding to a living body is divided into grids and the specific dielectric constant and the conductivity of each grid are prescribed, electromagnetic wave radiation source model data, in which an electromagnetic wave radiation source is divided into segments each having a unit length, data showing the positional relationship between the scattering body and the electromagnetic wave radiation source, data for prescribing a region to which a MoM including the electromagnetic wave radiation source is applied, and data for prescribing the region to which a scattered field type FDHD method is applied, including the region to which the scattering body and the MoM are applied,

and the steps comprising:

a first MoM processing step of determining the distribution of a current on the electromagnetic wave radiation source distributed by a voltage fed to the electromagnetic wave radiation source by the MoM;

a MoM/FDTD coupling step of determining incident electromagnetic fields incident on the respective grids in the scattering body from the electromagnetic wave radiation source using the distribution of the current on the electromagnetic wave radiation source determined above;

a FDTD method processing step of determining the electromagnetic field scattered from the scattering body by a scattered field type FDTD method from the incident electromagnetic field determined above;

a FDTD/MoM coupling step of determining electromotive

forces induced in the respective segments constituting the electromagnetic wave radiation source from the scattered electromagnetic field determined above;

a second MoM processing step of determining the distribution of the current on the electromagnetic wave radiation source distributed by the voltage fed to the electromagnetic wave radiation source and by the induced electromotive forces in the respective segments by the MoM; and

a repeat control step of repeating the steps executed at the MoM/FDTD coupling step, the FDTD method processing step, the FDTD/MoM coupling step, and the second MoM processing step until the results of the calculations executed at the processing steps are converged;

6. The program for estimation of biological electromagnetic compatibility according to claim 5, the repeat control step further comprising;

an electromagnetic wave protection indicating value calculation step of calculating an electromagnetic wave protection indication value from the results of the calculations of the scattered electromagnetic field and the like when determined that the results of the calculations have been converged.